

Area  
**G. LOPES CONSTRUCTION INC./On-Road**  
Machine Id  
**330**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PCA0122917</b>	PCA0122680	PCA0109551
Sample Date		Client Info		<b>09 Jul 2024</b>	17 Apr 2024	05 Dec 2023
Machine Age	mls	Client Info		<b>332000</b>	312000	292000
Oil Age	mls	Client Info		<b>223734</b>	172434	172434
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>65	<b>24</b>	37	24
Chromium	ppm	ASTM D5185m	>5	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>35	<b>12</b>	23	16
Lead	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>180	<b>4</b>	5	5
Tin	ppm	ASTM D5185m	>8	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

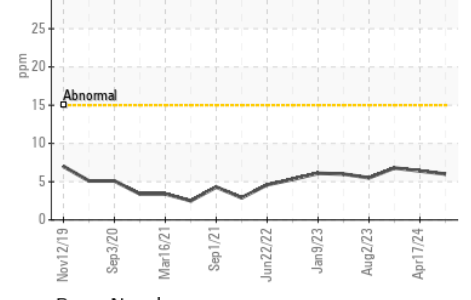
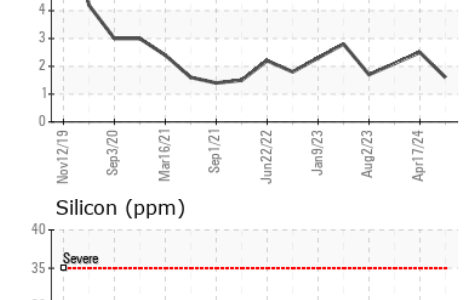
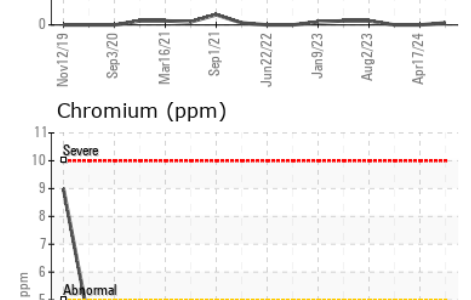
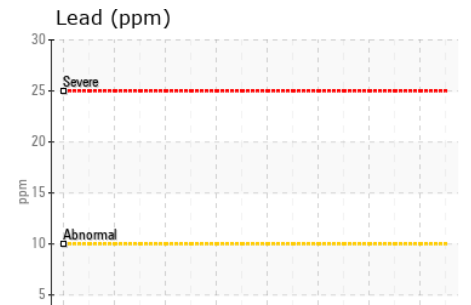
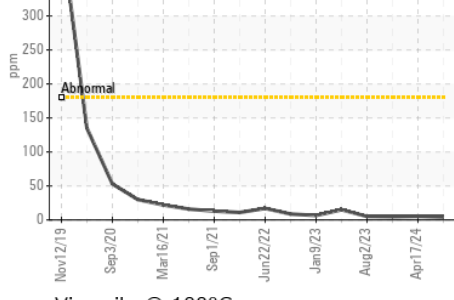
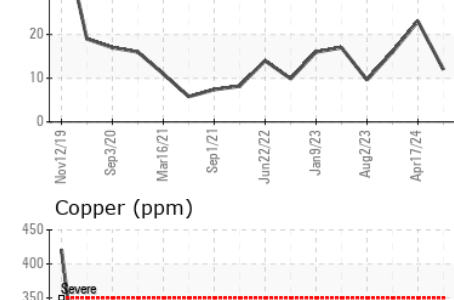
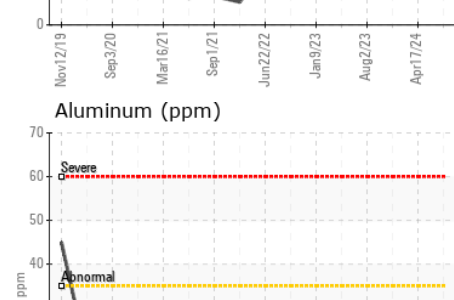
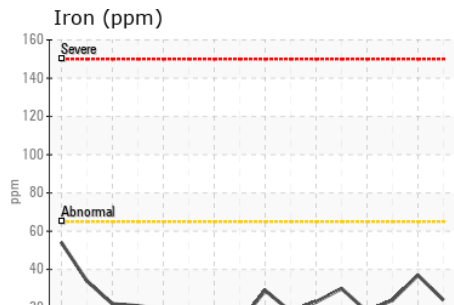
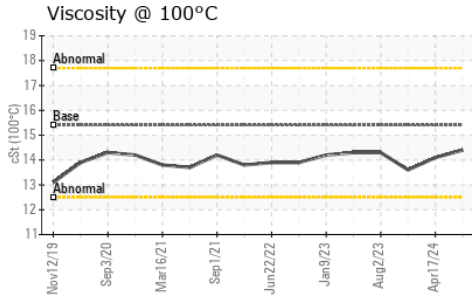
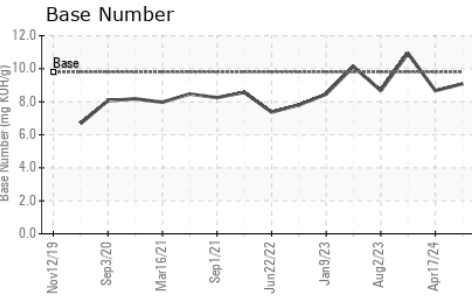
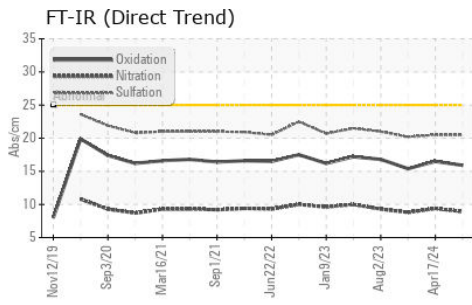
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	<b>6</b>	6	7
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	3	7
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	0.7	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.9</b>	9.4	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.5</b>	20.5	20.2
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	2	2
Boron	ppm	ASTM D5185m	0	<b>6</b>	0	8
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>61</b>	59	59
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>908</b>	941	908
Calcium	ppm	ASTM D5185m	1070	<b>1182</b>	1130	1088
Phosphorus	ppm	ASTM D5185m	1150	<b>995</b>	999	1030
Zinc	ppm	ASTM D5185m	1270	<b>1250</b>	1131	1284
Sulfur	ppm	ASTM D5185m	2060	<b>2706</b>	3280	3035
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.9</b>	16.5	15.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.09</b>	8.67	10.93
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.4</b>	14.1	13.6



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0122917  
**Lab Number** : 06233424  
**Unique Number** : 11116917  
**Test Package** : MOB 2  
**Received** : 11 Jul 2024  
**Tested** : 12 Jul 2024  
**Diagnosed** : 12 Jul 2024 - Wes Davis

**G LOPES CONSTRUCTION**  
 565 WINTHROP ST  
 TAUNTON, MA  
 US 02780  
 Contact: BUTCH MCGRATH  
 bmcgrath@glopes.com  
 T:  
 F:

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)